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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/764,627

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27683 7590 10/20/2008
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EXAMINER

PARRIES, DRU M

ART UNIT

PAPER NUMBER

2836

MAIL DATE

DELIVERY MODE

10/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/764,627	Applicant(s) JENKINS, DANIEL E.	
	Examiner DRU M. PARRIES	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-9,11-15,17-20 and 22-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5-9,11-15,17-20 and 22-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed July 29, 2008 have been fully considered but they are not persuasive. Regarding the Applicant's argument that the Clark reference teaches away from the present invention, the Examiner would like to point out that Clark is a secondary reference in this rejection and the only modification to the main reference (Wittenbreder) that is taught by the Clark reference is the shape of the air gap of the core of the inductor. The fact that the inductor/core in the Clark reference is in a setting where a very high current flows is irrelevant, since the Wittenbreder reference (i.e. the main reference) teaches a setting equivalent to the present invention, and as stated above, the only teaching taken from the Clark reference is the shape of the air gap of the core. Therefore, the combination of references show a system similar to the *claimed* invention, which operates an inductor that has a core with a non-constant gap, having one opposed surface being inclined relative to the other opposed surface.

Contrary to the Applicant's assertion, the references, if combined, will not destroy any intended functions of the Wittenbreder reference. Also, in response to the hindsight based combination argument, the motivation to modify Wittenbreder's inductor's core shape with the type taught in Clark is that Clark shows a variety of possible shapes for the air gap, and the inductance of the inductor can be controlled by the shape of the air gap (Abstract), therefore a user can produce an inductor with ideal characteristics for his particular system by modifying the inductor's air gap, as taught by Clark. In addition, the motivation to modify Wittenbreder with Gokhale is because Gokhale's non-linear inductors are used to reduce the percent total harmonic distortion in the line current. Finally, the motivation to modify Wittenbreder with Liu is because

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Wittenbreder is silent as to the type of load being powered and Liu teaches a specific load (i.e. IHS) that needs power and will in turn allow use of the IHS, and a simple substitution (one load for another) would be obvious.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-3, 5-9, 11-15, 17-20, and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wittenbreder, Jr. (5,402,329), Gokhale et al. (2004/0046634), Clark et al (2001/0013819), and Liu (2005/0078440). Wittenbreder teaches a zero voltage switching power supply system comprising an inductor (216), which stores energy and supplies energy to switches (206 and 212) to achieve zero voltage switching of the switches, which are arranged in a complementary switching configuration. (Abstract) He goes on to teach the switches being field effect transistors (Col. 25, lines 25-29). He also teaches supplying power to a generic load (226). Wittenbreder fails to explicitly teach an inductor whose inductance increases as current through the inductor decreases, nor does he teach shape of the core of the inductor, nor does he teach the supply system supplying power to an information handling system. Gokhale teaches an inductor having an E-I shaped or a C-shaped core with an air gap. He also teaches the inductor having an inductance that increases as current through the inductor decreases. (Abstract; [0038]; [0060]) Clark teaches an inductor having a core with a non-constant air gap defined by first and second opposed surfaces, at least one of the opposed surfaces being inclined relative to the other

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of the opposed surfaces. (Figs. 6, 9, 10, 12, 13) Liu teaches an information handling system (a notebook computer) comprising a processor, a memory coupled to the processor, and a power input coupled to the processor and memory. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Wittenbreder's inductor with the above teachings of Gokhale and Clark, since it will reduce the percent total harmonic distortion in the line current and will allow a user to control the inductance of the inductor as needed to produce the user's ideal inductor characteristics. It also would have been obvious to one of ordinary skill in the art at the time of the invention to supply power from Wittenbreder's power supply system to Liu's information handling system since Wittenbreder was silent as to the load being powered and Liu teaches a load that needs power from a supply system, and will in turn allow use of an information handling system.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dru M. Parries whose telephone number is (571) 272-8542. The examiner can normally be reached on M-Th from 9:00am to 6:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry, can be reached on 571-272-2084. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael J Sherry/

Supervisory Patent Examiner, Art Unit 2836

DMP

10-8-2008